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CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California 93407
ACADEMIC SENATE

Meeting of the Academic Senate
Tuesday, April 22, 1997
UU220, 3-5:00pm

I. Minutes:

II. Communication(s) and Announcement(s):

III. Reports:
- A. Academic Senate Chair:
- B. President's Office:
- C. Provost's Office:
- D. Statewide Senators:
- E. CFA Campus President:
- F. Staff Council representative:
- G. ASI representatives:
- H. IACC representative:
- I. Athletics Governing Board representative:
- J. Other:

IV. Consent Agenda:

V. Business Item(s):

VI. Discussion Item(s):

A. **System-wide Internal Partnership**: Jerry Hanley, Vice Provost for Information Technology Services, and Joe Grimes, chair of the IACC. This initiative addresses the technological requirements of the CSU system and strategies for meeting these needs. Campus issues being reviewed by ITS and the IACC will also be discussed.

B. **The Cal Poly Plan**: ongoing discussion.

VII. Adjournment:

Cal Poly University
San Luis Obispo, CA 93407

Instructional Computing Strategic Plan:

An Interconnected Instructional Environment.

Developed and Approved by

Instructional Advisory Committee on Computing

John Cotton, College of Architecture
Bob Clover, Instructional Technology Services
Charles Dana, Academic Senate
Douglas Genereux, College of Agriculture
Joe Grimes, College of Engineering, *Chair*
Adam Hafez, Associated Students, Inc.
Kimi Ikeda, Academic Affairs
[vacant], Associated Students, Inc.
Wayne Montgomery, Library
Wes Mueller, former Chair, IACC
Roxy Peck, College of Science and Mathematics
Mary Shaffer, Recording Secretary
Doug Smith, College of Liberal Arts
Allan Weatherford, College of Business
Tom Zuur, Administrative Advisory Committee on Computing

prior significant contribution by Kent Morrison, Mathematics

May 15, 1996

Send comments to iacc@oboe.aix.calpoly.edu
This document is also available on WWW at http://www.fmdc.calpoly.edu/iacc

Contents

Introduction

The Need for an Instructional Computing Plan

In the next decade, computing technology will provide us with even greater teaching, learning, and research opportunities than it has in the last. For most instructors and students, the computing revolution of the last decade was symbolized by desktop computers: Isolated machines loaded with word-processors, spreadsheets, graphics and computation programs. This first revolution is not complete. Many of our faculty and students still do not have easy access to such machines or the opportunity to learn to use them fully.

However, the next computer revolution already is underway. Instructional computing in the next decade will be symbolized not by isolated desktop machines, but by communication between those machines, among office and office, classroom and library, teacher and student, the campus and the world. The next revolution is less about the technology of computation than about access to information and ways of sharing it. Consequently, the next revolution involves most members of the university community, not only those who in the past have been primary users of technology.

Scholarly access to information technology resources should be available to any member of the Cal Poly community, in any place, and at any time. The cost of the information technology resources should be shared by the university, students, and industrial partners.

This document lists IACC recommendations in the specific areas of access, integration, skills, simplicity, and process. Because information technology is advancing at an exponential pace, this document must be considered a strategic goals document that will be somewhat out of date as soon as it is completed, thus necessitating continual revision.

Goal 1: ACCESS

Providing easy access to hardware and software for everyone in the campus community.

1.1 Communication all over campus.
Access to computers should be available in laboratories and classrooms throughout the campus. Ultimately every location on campus that any member of the university community finds to be a suitable place for pursuing the education enterprise should have suitable access to the information technology resources required.

1.2 Access from off-campus, anywhere, any time.
Students, faculty, and staff should have ready access anywhere off-campus to any centrally accessible computers, software, or information that is available to them while they are on campus. The university should strive to make its infrastructure compatible with the highest bandwidth generally available for remote connectivity.

1.3 Information technology classroom support.
Classrooms should be equipped with the necessary resources that allow faculty or students to support teaching and learning activities (for example, World Wide Web documents, computer-assisted design techniques, or library searches).

1.4 University-provided computers, software and connectivity for faculty and staff.
Faculty must be provided with information technology resources (such as computers, software, and connectivity) which are current and appropriate for present and future coursework.

1.5 Assured access to computers and connectivity for students.
The university must put in place the necessary infrastructure to assure that all students have adequate access to information technology resources (such as computers, software, and connectivity). Access at Cal Poly should meet or exceed the state mandated requirements.

1.6 Current data presentation interfaces on campus and throughout the community outside of Cal Poly.
Administrative data and other accessible campus information should be available to appropriate individuals both on campus and throughout the community.

1.7 Reliable security.
Access must be provided as described above in a way that will not compromise the privacy and proprietary nature of the data of other users.

Goal 2: INTEGRATION

Integrating information technology with the campus instructional environment.

2.1 Easy communication tools and information transfer for everyone on campus.
The interconnected computing system should provide an easy-to-use interface for communication among individuals in the campus community and with others outside the campus. This interface should provide transparent transmission and receiving of e-mail messages and other information, and should allow simple transfer of information from campus storage locations to the user's local storage location.

2.2 Universal e-mail.
All students should receive e-mail accounts upon admission, and all staff upon hiring. Appropriate support should be provided for creation of e-mail aliases for class and employee rosters. It is recommended that colleges, academic departments, and instructors should use e-mail rather than paper for memos, forms, and handouts whenever possible and appropriate.

2.3 High-demand functionality throughout the system.
The interconnected computing system should have adequate bandwidth and coverage of university facilities to allow: (1) the delivery of real-time audio, video, color graphics and collaboration to appropriate locations, and (2) remote real-time processing by computer servers for intensive computational needs of software run on connected personal computers.

2.4 Transparent integration of Kennedy Library services with other campus academic information technology resources.

2.5 On-line campus, community, and individual calendars.

2.6 Availability of all appropriate off-campus information technology resources.
The campus information technology resources access to off-campus appropriate IT resources and services to support professional development and curricular requirements of students, faculty and staff (for example World Wide Web, electronic databases, and news).

2.7 Relevant administrative data for faculty.
The faculty should have easy access to a transparent interactive integrated database that gives needed control for course management. This should include enrollment data, prerequisite checking, textbook/software ordering, assigning of grades and whatever other tasks bear on course management.

2.8 Professional application software
The campus information technology resources should provide a uniform and transparent system for providing access by all members of the campus community to software applications that are: (1) deemed important to the educational mission of the university and (2) beyond the normal range of software that individuals would be expected to own as personal copies.

Goal 3: SKILLS

Providing paths for learning information skills and for moving curricula into the new media

3.1 Computer education for all students.
The campus will continue to provide education in the use of information technology-based academic tools for all students, both within and beyond General Education requirements.

3.2 Information technology education for faculty and staff.
The campus should promote training for all interested faculty members to further their knowledge of information technology. This training should be provided for people at all levels of development at times which are convenient for the faculty or staff member. This training may come in the form of peers, campus professionals, seminars by campus professionals, or training programs presented by off-campus professionals.

3.3 RPT recognition for upgraded skills.
Faculty who develop their own information technology skills, train other faculty members in the use of information technology, or develop instructional tools which incorporate information technology must receive professional development recognition in the RPT process. In some cases, this will mean modifying department retention and promotion criteria to recognize the new media.

3.4 Easy access to training tools, such as tutorials on computers.
Where available, all campus information technology resources should have an on-line tutorial, in plain language, or help menu to assist the user with problems which are encountered.

3.5 Institutional support for learning studies and for projects which revise existing curricula to use new technology productively.

3.6 Expert person-to-person help in plain language from a single source for supported information technology resources.
The campus should provide central assistance for problems which arise from a single point of contact on the campus. Users should be able to communicate with one help desk when they encounter problems.

Goal 4: SIMPLICITY

Making use of campus technology as simple as possible

4.1 User-friendliness a primary concern in all decision making about any part of the information technology resources of the campus.

4.2 Easy-to-use tools for creating instructional modules.

4.3 Simple tools for accessing information technology resources.

4.4 Complete transparency/interoperability across platforms.

4.5 Consistent interfaces across platforms and in all locations.

4.6 Written documentation in plain language, printed and on-line.

Goal 5: PROCESS

Creating an ongoing process for continuity of operations and evolutionary change

5.1 Necessity of a process.
A process is necessary to insure that review of progress toward the strategic goals occurs. An annual review of both the goals and status of programs and projects related to achieving them should be conducted and published by the Information Resources Management Policy and Planning Committee (IRMPPC).

5.2 Publicly available strategic plan.
The IRMPPC should maintain and make accessible to all members of the campus community a current information Resources Management strategic plan that contains all of the relevant information for organizations and individuals so they will be able to plan computing activities and development projects that are consistent with it.

5.3 Revising the information technology strategic plan.
A clearly described process for revising the information technology strategic plan should be devised and published by IRMPPC.

5.4 Implementation plan.
The implementation process must be preceded by the development of an implementation plan. Implementation plans should always strive to minimize disruption of the current work environment and insure that training opportunities exist for those affected by the implementation. For example, implementation plans should provide:

- A mechanism for measuring the success of implementing the strategic plan.
- An interaction between the academic users of information technology and the implementers.
- Adequate notification of changes to the user interface.
- Timing of implementation activities so that disruption is minimized, and opportunities for learning new systems and interfaces before full implementation are maximized.

5.5 Commitment to openness across platforms and vendors to allow for future growth and change.

5.6 Definition of financial responsibility.
The IRMPPC must develop a clear definition of financial responsibilities for the university, colleges, departments, and students (i.e. who decides and who pays for each piece of the system?).

5.7 It is recommended that the deans and department chairs facilitate, encourage and support the strategic plan.

5.8 Definition of the relationship between users and the implementers.
The IRMPPC must develop a clearly described process for optimizing coordination among campus groups and implementers of the strategic plan. The process must fully support the other goals of this document and provide a consultative process between the users and the implementers of the outcomes of the goals of this document.

Academic Senate Briefing
April 22nd 1997

- IACC Update - goals and key initiatives
  - ***Instructional Computing Strategic Plan***
- ITS - CIO introduction - Q's & A's
- ITS Projects
  - Faculty Work Station Phase 1
  - Unix-Email implementation (Open Mail/Open Time)
    - Q's & A's
  - Digital Voice Service
  - Mainframe Applications and support planning
    - Q's & A's
- The CSU's Technology Infrastructure Initiatives
  - Baseline Access, Technology & Support
  - Systemwide Internal Partnership
    - Q's & A's

Info - Senate 4.22.97

STATE OF INFORMATION TECHNOLOGY AT CAL POLY

PRESENTATION
TO

ACADEMIC SENATE

APRIL 22, 1997

I. Purpose of presentation
   A. To inform

   B. To be informed

II. General Philosophy
   ✓A. Information technology as a part of the entire teaching/learning process

   ✓ B. Technology driven by teaching/learning process
      1. Traditional and modern uses
      2. Full integration of hardware, software, training, and support

III. Current Process
   A. IACC development of prioritized Strategic Goals for Information Technology

   B. Campus approval of Strategic Goals obtained

   C. Information Technology Services(ITS) implementation of specific projects which fall under the Strategic Goals

   C. Communication as the key

IV. IACC Strategic Goals
   A. Purpose
      1. Set Information Technology Priorities for Campus

      2. Provide an orderly implementation of campus requirements

      3. Take advantage of financial opportunities

   B. Goals realization stages:

   C. General Categories
      1. Access - faculty workstations
      2. Integration
      3. Skills
      4. Simplicity
      5. Process - how proceed w/ prior 4 and keep current.

V. Important activity on campus
   A. Faculty workstations

   B. UNIX upgrade

   C. Telephone switch

   D. Next mainframe

VI. Important activities at the state level
   A. Technology initiatives

   B. Cornerstones

   C. Partnerships

Instructional Computing Strategic Plan
Current Highlights

- Access
  - FWS with connectivity, Digital voice services,
  - building connections (buildings 52 & 26)
- Integration
  - Unix messaging / scheduling / calendaring
  - CSU-Net / 4CNet
- Skills
  - Baseline Access, Training and Support (BATS) e.g. , help desk
  - FMDC - planned expansion (summer 97)
- Simplicity and Process
  - steps towards standardization
  - ITS inclusion in CalPoly Plan proposals
  - IRMAC annual report

ITS - CIO introduction

- Role of the IACC
  - defining the agenda and identifying teaching and learning priorities
  - representation of faculty requirements
  - channel and source for feedback and for impact assessment
- Key ITS directions
  - continuing to open our processes up to faculty, students and staff
  - operational excellence with current and pending projects and processes
  - leadership to build the fully realized instructional platform
  - campus-wide integration...the learning utility
  - integrate funding strategy and results

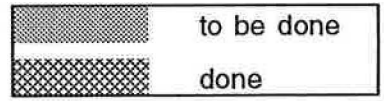
ITS Projects

- Faculty Work Station Phase 1
- Unix-Email implementation (Open Mail/Open Time)

- Digital Voice Service
- Administrative Systems and Mainframe support planning

Faculty Workstation Project

Key Activities	1º Responsibility
Develop allocation Principles & Guidelines	IACC
Assess Need	IACC
Develop Allocation Model	IACC
ID numbers of Systems by Platform and College	Deans
Finalize Hardware & Service Specs	ITS
Develop Procurement Docs	ITS/Purchasing
Request Bids	Purchasing
Confirm Orders with Deans	ITS/Deans
Final contract/Order	Purch/vendor
Delivery and Deployment	Vendors/ITS
Training	ITS

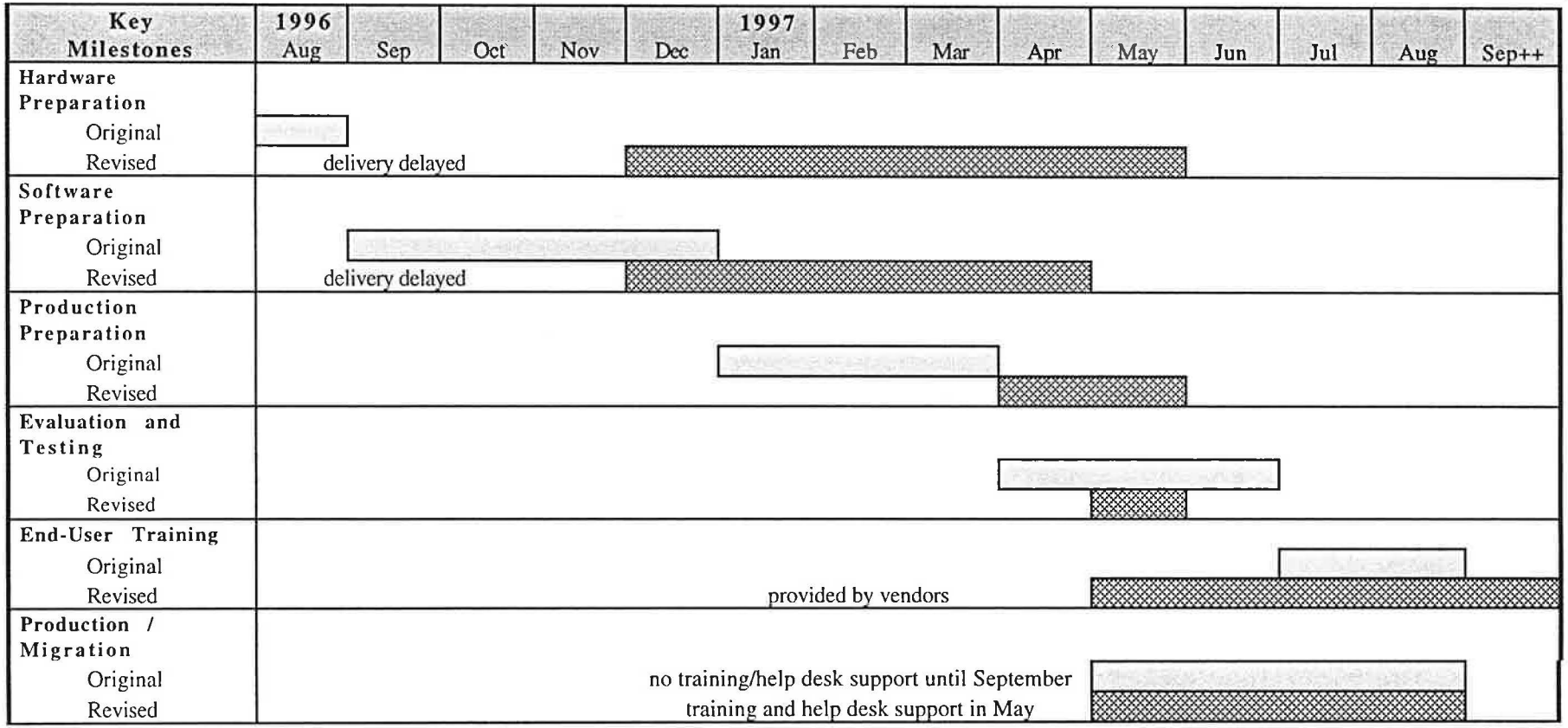


Assumptions:
Final orders are finished 4/22/97
Apple delivery will begin 4/28/97
Dell/Western Blue deliver will begin 5/5/97

Issues:

Logistics of installation	Maximum installation rate is about 100 units per week. Staged delivery and installation over several weeks is recommended. Will need to schedule installs over variable faculty schedules.
College/Dept Tech support option	Colleges/Departments may be able to do actual installations and training. ITS will work with Deans/College technical support staff to identify the activities where such support can be done.

Campus Electronic Mail & Calendar Implementation Plans



Key Milestones

1. Hardware preparation
   Installation, configuration, connection to campus network and security
2. Software preparation
   Server software installation and configuration, client software configuration/preparation, initial system-level testing
3. Production use preparation
   Software bug-testing, resolve production issues, develop transition and migration services, develop support procedures
4. Evaluation and testing
5. End-user training
   Develop documentation, training material, staff & faculty training conducted on OpenMail and OpenTime
6. Begin production use & migration
   Software is made available, help-desk support is available, staff & faculty migration from OfficeVision and Pine
7. Post-production development - information only, dates and resources not defined at this time
   Develop contingency plans, resolve situation specific problems, develop application to application messaging, evaluate other clients for use, evaluate student use of calendars, integrate with SIS class schedules, integrate with Schedule 25/Resource 25, etc.

Assumptions

1. OpenMail and OpenTime training will be offered on Windows and Macintosh clients only (not Web, UNIX, ASCII, mobile clients)
2. Vendors will conduct initial training on OpenMail and OpenTime, here at Cal Poly
   OpenMail training provided for all employees: 1.5 hour hands-on classes with 10+ page workbook & 2 page quick reference guide
   OpenTime training provided for all employees: 1.5 hour lecture followed by hands-on lab exercises with 2 page quick reference guide
   OpenTime comprehensive support training provided for up to 72 employees who will provide departmental user support:
   Two full days of hands-on training with 10 + page workbook. It's expected that departmental LAN coordinators and/or 'super-users' will attend and provide support to their department constituents. ITS will identify up to 72 departments for this training, the departments will determine the attendee.
3. OfficeVision email and calendar migration will take place from 7/3/97 - 8/31/97
4. Before students receive OpenMail accounts, the server capacity will be re-evaluated
5. Departmental LAN coordinators and/or 'super-users' will provide OpenMail and OpenTime liaison support to their department.
6. TCP/IP connectivity is required to run OpenMail and OpenTime.
7. Use/demand patterns will not change significantly from existing use/demand patterns. Significant changes in use will require additional hardware, software and support.

OpenMail / OpenTime

Benefits / Features of OpenMail and OpenTime

- Graphical, easy-to-use interface with standard pull-down menus, not cryptic commands
- Can send PC documents, such as Word, Excel, PowerPoint, etc. easily
- OpenMail (email) and OpenTime (calendar) are separate products and can be run independently of each other
- Email is stored efficiently on disk, only one copy of messages, not one copy for *each* recipient
- One central directory for all email and calendar accounts
- Opportunity to support all employees (faculty and staff), and students on a *single system*, providing the benefits of central support for all users
- Ability to easily address, send, and receive email messages (no requirements for NAMES entries)
- Calendar is graphical. MANY formats for printing calendars - Avery, Franklin, DayTimer, others...
- Can access email with Netscape
- Software runs on Windows, Macintosh, UNIX, mobile/remote access is available including off-line mail processing with central or local mail storage
- Software will run with SLIP or PPP
- Easy to copy/move messages from server to local computer's hard disk using the Mobile client software
- Software is user installable from the Web

Recommended Configuration for OpenMail *and* OpenTime

: TCP/IP connectivity is required
: Windows 3.1, 3.11, 95 or NT 3.51, 386 or 486, 6MB RAM, 8MB available hard disk space
: Macintosh System 7.1.1 or higher, 7MB available hard disk space, MacTCP 2.0.4

Clients Supported for OpenMail and OpenTime

: Windows 3.x, 95, NT (with TCP/IP)
: Macintosh (with TCP/IP)
: WWW access for OpenMail
: HP-UX, IBM AIX, Sun Solaris
: Dial-up /off-line mobile access for Windows and Macintosh
    : Reading, filing, composing email can be done off-line, then processed when connected later
    : Off-line/mobile access includes file folders message storage and retrieval

Telecommunications Switch Implementation
Key User Dates

	April	May	June	July	August	September
Departmental Surveys	Due April 11					
Departmental Visits	April 15 to June 30					
Billing System Cut Over			Trial Billing in June			
Faculty Training			June 1-15			
Administrative Staff Training				July 28 to August 7		
Telephone System Cut Over					August 9	
Change to 5 digit dialing					August 9	
Voice Mail Cut Over					August 9	
PCS/Wireless Implementation					August 9	
Residence Hall "R.A." training						First week of September
Faculty Staff Training						Fall Training begins September 15

Revised: April 21, 1997

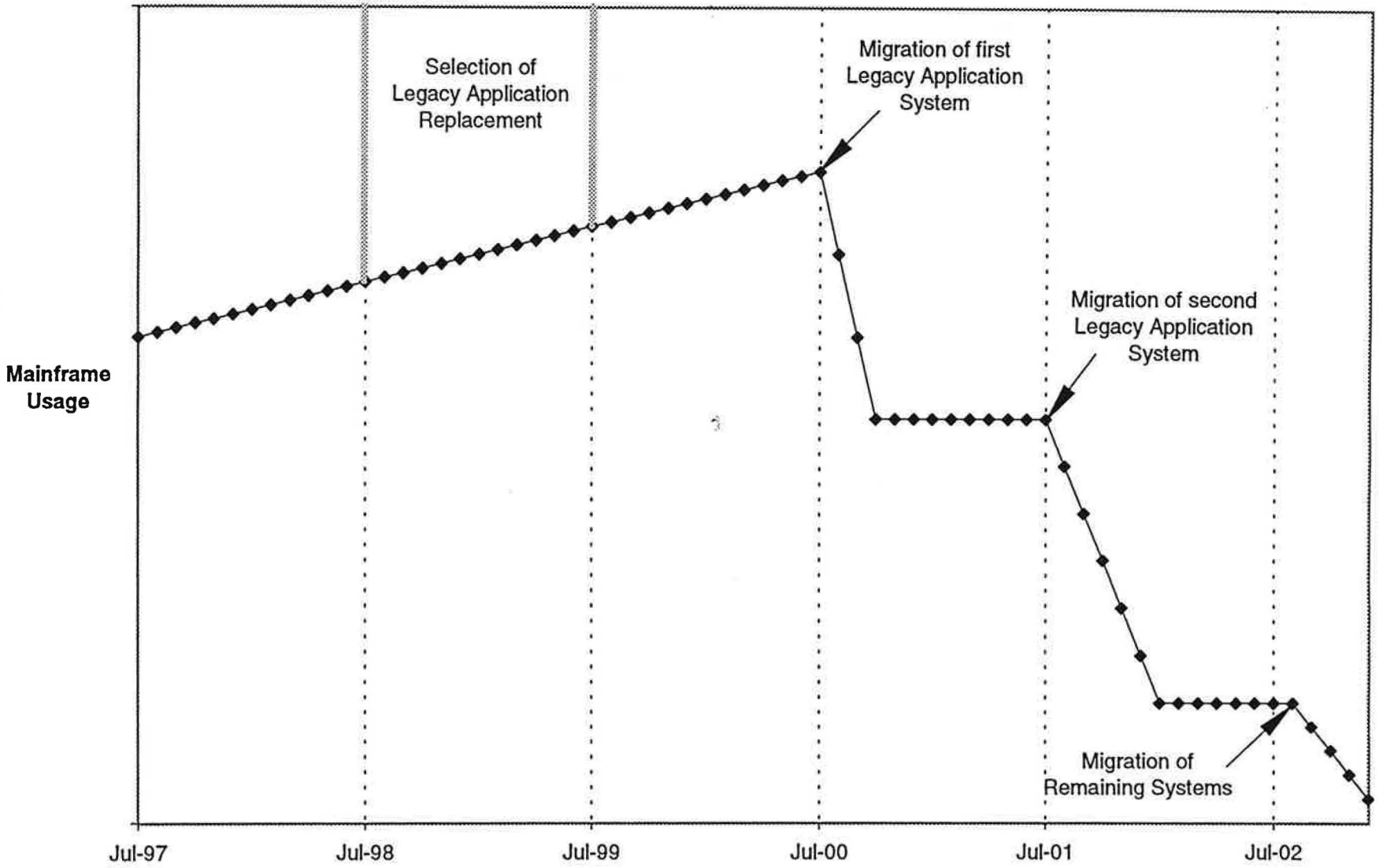
Telecommunications Switch
Ericsson MD110 PBX

Benefits / Features

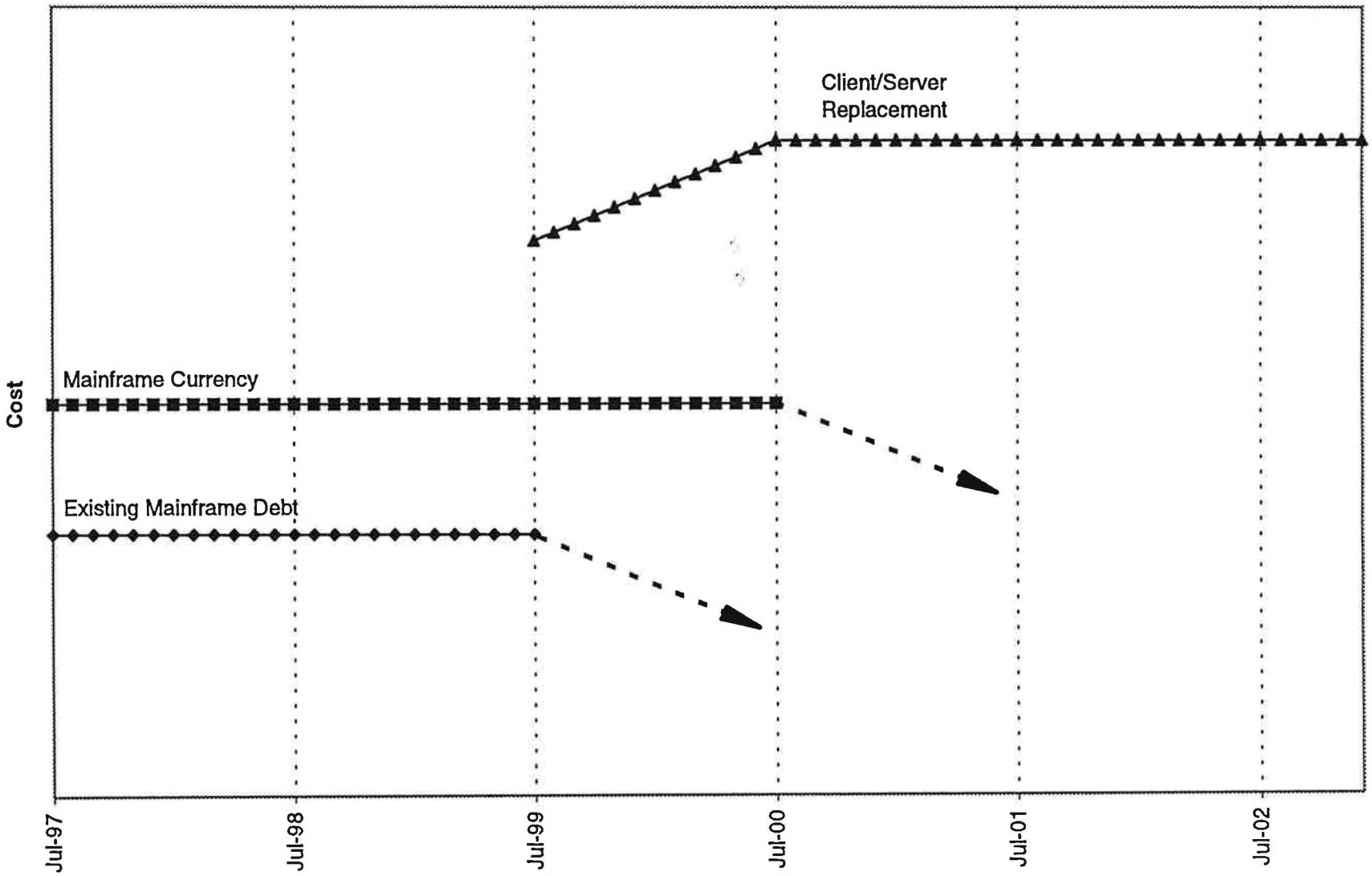
- Digital Switch Technology
- Fully integrated system features such as
  - Automatic Call Direction (ACD)
  - Computer Telephone Integration (CTI)
  - Voice Mail
  - Caller I.D.
  - Multiple Line Appearance Capability
- Robust Telemanagement System
  - Billing Reports will be easier to decipher
  - Provides better management tools to departments
- Campus-wide wireless / PCS solution
- Core distributed architecture and distributed processing intelligence
- Superior strategic business proposal
- Superior on-campus technical support

Revised: April 21, 1997

Administrative Systems "Life" Cycle



Administrative Systems "Life" Cycle



Proposed Process - Discovery to Downselect

- April 16 Discovery
- April 18-30 CSU Staff Available
- May MTW CSU Staff Availability
- May TF Development Team
- May 19 Second Group Meeting
- May 30 Initial Business Propositions
- June 13 Downselect (if required)

Proposed Process

- June/July Finalize Business Propositions
- August 1-15 Clarifications and Selection
- August 15 - Sept 30 Announcement and Approval
- Sept/Oct Negotiation
- Oct-Dec Implementation Planning
- Jan, 1998 Begin Implementation

The CSU's Technology Infrastructure Initiatives

- Cornerstones' Task Force II

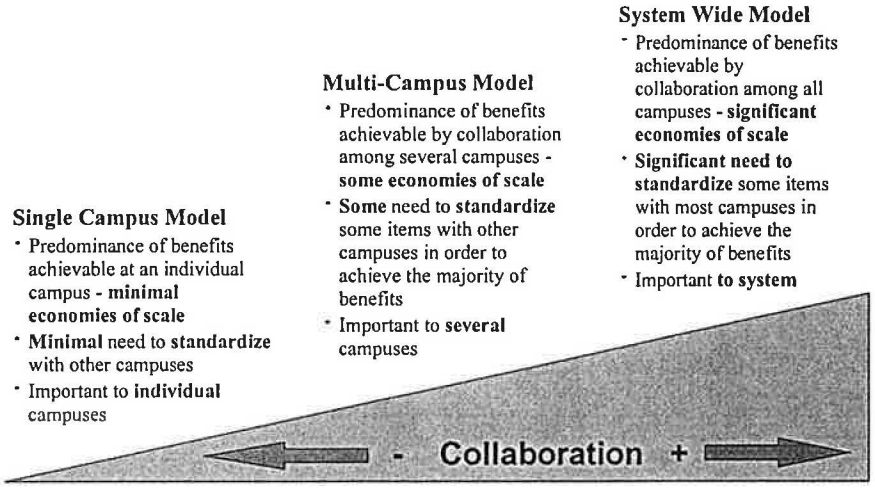
" We believe that a new public policy framework for financing highr education in the next century must be developed to guide the financing strategies and decisions...while preserving access and quality..."
  - additional opportunities to innovate teaching and learning
  - "tidal wave II" and other expanding enrollment demands
  - appropriations short falls
  - competition for scarce resources

Teaching and Learning Challenges

- Increased demand
  - access to technology enabled information and services
  - educational services (Tidal Wave II)
  - new requirements for polytechnical education and training
- Traditional sources of technology and infrastructure funding are not reliable
- Technically literate prospective students
  - technically competent
  - network dependent
- Traditional responsibility for education is shifting (The Monster Under the Bed)
- Business and society demand technically literate graduates

Governance and Management Structure

The success of the ITS initiatives can best be achieved through a cultural transition toward a "pragmatic decentralization" view that exploits collaborative efforts where they make sense.



TII Scope Expected Outcomes

- Baseline capacity, functionality, integration
- Technical standardization
- Quality/quantity of services--wherever needed
- Currency and sustainability of resources
- Cost-effectiveness and efficiency
- Sustainable self funding design

TII Participation Scenarios

- Single Provider
- Primary Partner with Sub-Partners
- Portfolio Management
- Business Co-operatives (Comms, Education)
- Insource and Outsource
- Authorities

TII Partner Selection Criteria

- Initial
  - Physical Size
  - Ability to Leverage Assets
  - Match of Needs
  - History with CSU
  - General Partnering History
  - California Presence
  - Financial/Ops Capability
  - Gartner Criteria
    - Markets, Technologies, Style and Other Skills
- Downselect
  - Cultural Fit Share Vision/Outcome
  - Creativity/Innovation
  - Commitment
  - Ability to Leverage Assets
  - Needs Match
  - Financial/Ops Capability
  - Style
  - Other Capabilities
  - Intent to Use CSU Assets

ITS on the WEB!

http://www.calstate.edu/
its/sip/itp_sip.html